Truck Parking Availability System
Florida’s Unique Approach

Marie Tucker, FDOT
Commercial Vehicle Operations Manager
Florida International University (FIU) Research (2011)

Identified current supply and demand of public parking:

- Needs to “balance” parking use.
- Technology deployment for information availability.
University of Florida (UF) Research (2016)

- Evaluation of in-ground sensors to examine their capabilities
  - Tested four different vendors
- Ground-truth data through video logs
- Three products listed on FDOT’s Innovative Products List (IPL)
University of Florida (UF) Research (2016)

Performance Accuracy Requirements

- Turnover Accuracy – 90%
- Occupancy Accuracy – 95%
- Detection system test conducted over two 15-hour (6:00 p.m. to 9:00 a.m.) sessions

Developmental Specification 660

VEHICLE DETECTION SYSTEM.
(REV 12-20-16)

ARTICLE 660-2 is expanded by the following:

660-2.5 Truck Parking Detection System: Furnish and install a truck parking detection system in accordance with the details shown in the Plans. The detection system must be capable
Project Delivery

Stage 1: Implementation of technology to accurately assess and disseminate the availability of truck parking

Stage 2: Development of predictive analysis for future parking availability

Stage 3: Incorporation of private parking locations for systemwide resource utilization

Three-stage approach to statewide comprehensive truck parking solution
**TPAS Locations**

- 45 rest areas
- 20 weigh stations
- Three (3) welcome centers

<table>
<thead>
<tr>
<th>Number of Truck Parking Spaces Monitored</th>
<th>2,352</th>
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<tbody>
<tr>
<td>Wireless Detection System (WDS)</td>
<td>1,875</td>
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<tr>
<td>Microwave Vehicle Detection System (MVDS)</td>
<td>477</td>
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</tbody>
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4 Corridors: I-95, I-4, I-75, I-10  
3 Welcome Centers  
20 Weigh Stations  
45 Rest Areas  
Truck Parking Sites Located in FDOT Districts 1, 2, 3, 4, 5 and 7
Public Parking – Stage 1

- Complete 2019
- All public facilities
- Based on existing locations
Private Parking Availability – Stage 3

• Incorporation of private facilities
• Based on existing locations
• Can include new, strategic locations for staging near ports/freight generators
Freight Growth

Freight Truck Volume by Roadway Segment
- 0 - 500
- 500 - 1,000
- 1,000 - 2,000
- 2,000 - 3,000
- 3,000 - 4,000
- 4,000 - 5,000
- 5,000 and higher

Statewide Network

2015

2040 Projections
Regional Freight Network – Communications

- Statewide fiber optic communication network
- Inter-connects weigh stations
- Establishes the backbone for freight network